

PHOTOGRAPHY

FAQ

Q How many megapixels do I need to get high-quality pictures?

A The resolution of digital cameras varies from 3 to 10 megapixels, going even higher for professional cameras. But 5-megapixel sensors, which equate to images of around 2,600x1,950 pixels, are increasingly popular in budget and mid-range cameras.

If you simply want to view photos on a PC, 2-megapixel images (1,600x1,200) are fine. For print, 300 pixels per inch looks as sharp as the eye can see, so a 5-megapixel image can be printed at up to 8½x6½ inches while maintaining detail.

If you plan to print at larger sizes, more pixels start to pay off. An 8-megapixel image printed at 300dpi will fall just short of A4 size. Higher resolutions also make sense if you want to crop pictures after shooting.

Ben Pitt

Music and photography expert

ben@computershopper.co.uk

KODAK V570

★★★★

£222 inc VAT

Kodak's V570 is possibly the most stylish camera we've ever seen. It has a refined elegance that hints at art deco and it looks even more handsome when seated in its pedestal-style docking station. About the size of a mobile phone, it'll fit comfortably into a petite handbag or trouser pocket.

Even more remarkable are its dual lenses, each with a 5-megapixel CCD. One lens has a fixed, wide-angle focal length of 23mm (35mm-equivalent), which is perfect for photographing groups of people at close proximity or capturing panoramic views. The other lens has a more typical 3x zoom (39–111mm). The two together add up to a 5x zoom range. There's a sizeable jump in the view as you switch between the wide-angle and the zoom lens, but it's simply achieved with the zoom control so won't cause any confusion. Each lens has its own CCD, so the switch is instantaneous.

The camera is quick, at less than two seconds between shots, even when using the flash. Battery life is passable, surviving 233 shots in our test. The 2.5" screen shows a bright image, but this is often misleading; in low light, the preview image is often much brighter than the resulting photo. With limited control over exposure, the Night Landscape scene preset is the only way to get well-exposed shots in low light without the flash. Even then, results sometimes appear gloomy. The flash performs well at close range but lacks the power to illuminate large rooms. The overly bright preview makes it clear when your fingers have crept in front of the lens; the compact design and recessed lenses make this a common occurrence, particularly in wide-angle mode.



Manual control is basic, but we didn't have much cause to deviate from automatic settings. Colours were consistently flattering yet natural everywhere except in low light. High-contrast shots in direct sunlight were superbly exposed. However, both lens and CCD combinations exhibited a slight lack of focus and detail compared with the other 5-megapixel cameras we tested this month. It wasn't noticeable when viewing onscreen or printing at standard sizes, but enlargements and cropped photos looked a little vague. It's sharp enough for the VGA-resolution video capture, though. A fast, smooth auto-exposure, a working

optical zoom and highly efficient MPEG4 compression add up to a capable video mode.

We've yet to see an ultra-compact digital camera with exceptionally high image quality. The V570's poor performance in low light is regrettable for a camera that's otherwise so well suited to a glamorous nightlife. Still, if the elegant, compact design and wide-angle lens are what you're after, we would cautiously recommend it.

Ben Pitt

SUMMARY

- ✓ Beautiful design
- ✓ Capable video mode
- ✗ Unremarkable image quality

DIGITAL CAMERA 5 megapixels (2,569x1,929 pixels), 3x optical zoom plus wide-angle, 32MB internal memory, SD slot, 3.7V 720mAh lithium ion battery PART CODE 8644460
SUPPLIER www.morecomputers.co.uk
DETAILS www.kodak.co.uk

PERFORMANCE (see page 60)

Battery life 233 shots

-50% Reference +50% +100%

Also consider...

OLYMPUS SP-350

★★★★★

£210 inc VAT

PRICE CUT!



The Olympus SP-350 may be small enough to fit in a handbag or a pocket, but its accessory

hotshoe and threaded lens ring prove it's no mere point-and-click camera. It provides program, aperture priority, shutter priority and full manual controls, and histogram and exposure value (EV) readouts are there to help. In our tests it excelled at capturing detail both in bright and dark areas of high-contrast compositions.

The SP-350 has excellent image quality and is extremely competitive for such a versatile camera.



DIGITAL CAMERA 8 megapixels (3,264x2,448 pixels), 3x optical zoom, 25MB internal memory, xD-Picture Card slot PART CODE 003753 SUPPLIER www.buyacamera.co.uk
DETAILS www.olympus.co.uk www.samsung.co.uk ✓ Superb image quality ✗ Not particularly fast FULL REVIEW Mar 2006

NIKON CoolPix 5600

★★★★★

£120 inc VAT



Nikon's CoolPix 5600 is a low-cost, no-frills camera. The lack of manual settings will put off the amateur

photographer, but the point-and-click crowd will love its ease of use and excellent image quality.

The 5-megapixel sensor captures photographs in fine detail and exemplary colours in a range of conditions. In low light without the flash it resorted to exposure times of up to two seconds, but we prefer this to underexposed, grainy images captured in low light with a short exposure. Quite a bargain.



DIGITAL CAMERA 5 megapixels (2,592x1,944 pixels), 3x zoom lens, 14MB internal memory and SD slot PART CODE VAA310E0 SUPPLIER www.buyacamera.co.uk DETAILS www.nikon.co.uk ✓ Great photos in an affordable package ✗ Basic controls FULL REVIEW Jan 2006

CANON Digital Ixus Wireless

★★★★

£284 inc VAT

Wireless network adaptors are cropping up on all sorts of devices, but Canon's Digital Ixus Wireless is only the second camera we've seen to contain one. To some it might seem like a pointless gimmick, but we like the idea of simply pressing a couple of buttons to copy pictures to the PC rather than grappling with the impenetrable tangle of cables that loiter by our PC cases. Being able to take a picture and see it on the computer desktop almost instantly is an entertaining novelty and could be genuinely useful on a photo shoot with a WiFi-enabled laptop.

The built-in wireless adaptor uses the older 802.11b standard, so it isn't particularly fast. We measured 0.25MB/s, which equates to around 7.5 seconds per photo at maximum quality settings; nowhere near the 2MB/s we achieved for USB transfers. Still, WEP and WPA encryption are both supported, and the camera can join an infrastructure network or make a direct ad hoc connection to a PC.

There's a second wireless adaptor in the box, but this works only with PictBridge-compatible printers and not with PCs. This seems frivolous to us. How many people print photos straight from their camera without checking them first on their PC screen? To transfer images wirelessly to a PC, the PC will need its own wireless adaptor (or to be connected to a wireless network) and be running Windows XP with Service Pack 2.

The wireless connection is set up using the USB cable and the supplied software. We found the process straightforward but only after we had located the instructions, which were hidden on a different CD-ROM to the installation software. Wireless transfers were then easy. A couple of button pushes on the camera were all it took to make a connection and for the Canon software on the PC to spring to life and copy pictures across or display them within seconds of them being taken. It doesn't matter if you shoot faster than the wireless transfers can keep up with, because pictures are also recorded to SD card; the wireless transfers catch up eventually.

It's even possible to operate the camera remotely from the PC, complete with full control over camera settings and a live preview with an impressively low 80ms lag. This is a fun feature, although you'd need to turn off all the camera's sound effects and cover up the flashing lights before you'd have much success with Canon's suggested application of wildlife photography.

Otherwise, the camera is a typical Digital Ixus. It's smart, compact, seems robust and is quick and easy to use. Exposure control is limited to ISO settings and exposure compensation, but both of these are accessible without excessive menu delving. The camera can take a photo within two seconds of starting up and continue indefinitely



at the same rate, increasing to three seconds with the flash enabled.

Battery life is disappointing, though. We got 230 shots with wireless switched off, and this dropped to 148 when it was switched on. A second battery will set you back around £26.

Image quality was consistently high in our tests. Pictures were impeccably sharp and smooth areas of colour were exceptionally pure. Complex, textured areas displayed some side effects of noise reduction processing, although these were noticeable only at ISO 200 and 400. Flash photography was well exposed with warm colours, and the macro mode focused down to just a couple of centimetres.

The Digital Ixus Wireless is a great little camera, but without the wireless features we wouldn't spend more than £200 on it. Nikon's WiFi-equipped Coolpix P2 (which we reviewed in *Labs, Shopper* January 2006) takes equally accomplished photos and costs just £170 including VAT, though its wireless features aren't as elegant. The Digital Ixus Wireless isn't worth £284, but if it falls to around £230 we'd be happy to recommend it.

Ben Pitt

SUMMARY

- ✓ Sophisticated wireless capabilities
- ✓ High picture quality
- ✗ Expensive

DIGITAL CAMERA 5 megapixels (2,592x1,944 pixels), 3x optical zoom, 16MB SD card, 3.7V 760mAh Li-ion battery PART CODE 0312B004AA
SUPPLIER www.dabs.com
DETAILS www.canon.co.uk

PERFORMANCE (see page 60)

Battery life: **230 shots**
-50% Reference +50% +100%

EPSON Perfection 2580 Photo

★★★★★

£88 inc VAT

BEST BUY The Epson 2580 Photo's lid contains an unusual motorised film feeder for loading strips of negatives. It feels sturdy and was very quick in operation, previewing six negatives in just 31 seconds. Despite its modest optical resolution, the Perfection 2580's crisp and detailed film scans are excellent, as are its reflective scans.



SCANNER 2,400x4,800dpi optical resolution, 48-bit colour, USB Hi-Speed PART CODE B11B172122
SUPPLIER www.shopmagenta.com DETAILS www.epson.co.uk
✓ Excellent film scans ✗ Slight softness to reflective scans
FULL REVIEW Sep 2005

NIKON CoolScan LS 50 ED

★★★★★

£445 inc VAT

BEST BUY Nikon's CoolScan LS 50 ED has interchangeable film loaders that handle mounted slides or strips of up to six 35mm negatives. The powerful TWAIN interface takes a little learning, after which scans are quick and easy. This scanner produces the sharpest images we've ever seen, revealing details that most other film scanners miss.



FILM SCANNER 4,000x4,000dpi optical resolution, 42-bit colour, USB Hi-Speed interface PART CODE LS50NSUK
SUPPLIER www.fotosense.co.uk DETAILS www.nikon.co.uk
✓ Fantastic image quality ✗ Complex TWAIN interface
FULL REVIEW Feb 2006

CANON PowerShot A610

★★★★★

£166 inc VAT

BEST BUY Canon's PowerShot A610 is fairly large, but it fits comfortably in your hand. Its picture quality is amazing. It coped flawlessly with tricky lighting conditions such as high contrast and near darkness, and its macro function made objects just 2cm wide fill the picture. With an excellent video mode and manual focus, the A610 is better than many more expensive cameras.



DIGITAL CAMERA 5 megapixels (2,592x1,944 pixels), 4x optical zoom, 32MB SD card PART CODE 0322B007AA
SUPPLIER www.savastore.com DETAILS www.canon.co.uk
✓ Fantastic image quality ✗ Bulky design
FULL REVIEW Jan 2006

PANASONIC DMC-LZ3BS

★★

£200 inc VAT

With its plain plastic case, the LZ3 doesn't have the allure of Panasonic's pricier cameras, but it includes the company's effective optical image stabilisation. This uses a gyroscope to detect camera shake and a moving lens element to counteract it, giving sharper pictures when using long exposures and telephoto zoom settings. This is welcome considering the generous 6x zoom range.

The supplied memory is woefully inadequate, holding just five pictures at the top resolution, so budget for a 512MB SD card. Rechargeable batteries are another essential extra, and with USB transfers ambling along at under 0.6MB/s we'd recommend a USB Hi-Speed card reader, too. All in, this will add around £50 to the price of the camera.

There's a minimum of user options, with ISO, white balance and exposure compensation but no light-metering options or direct control over shutter speed and aperture. A colour saturation control is included, but we found this was best left at its default setting. A choice of 4:3, 3:2 or 16:9 aspect ratios is welcome, though.



Picture quality was generally excellent, with warm colours in a range of conditions and a powerful flash. Focus was sharp at low ISO settings, but at ISO 200 and above photos had a smudged effect viewed up close. Video looked good but was recorded without sound. Performance was fairly

fast, at around four seconds between shots with the flash and two seconds without. Battery life is passable, with 228 shots from a pair of Duracell Ultra batteries.

The LZ3 doesn't have any serious faults, but the 6x zoom isn't enough to justify the price when you consider the bulky plastic case, 2" LCD screen, limited user control and the extra expense of necessary accessories.

Ben Pitt

SUMMARY

- ✓ 6x zoom with optical stabilisation
- ✗ Poor value
- ✗ Aggressive noise reduction

DIGITAL CAMERA 5 megapixels (2,560x1,920 pixels), 6x optical zoom, 14MB internal memory, SD slot, 2xAA batteries (non-rechargeable)
PART CODE DMCLZ3BS
SUPPLIER <http://shop.panasonic.co.uk>
DETAILS www.panasonic.co.uk

PERFORMANCE (see page 60)



RICOH Caplio R30

★★★★

£183 inc VAT

Ricoh's R30 ticks all the right boxes for an affordable, general-purpose digital camera: it has a 5-megapixel sensor, compact aluminium body, 2.5" LCD screen and a lithium-ion battery.

The lens has a 5.7x zoom range and stretches from a wide-angle 28mm to 160mm (35mm-equivalent) focal length. Battery life is also good. The camera is fast at taking pictures, too, at just over a second between shots without the flash and under two seconds with it. The continuous mode managed 50 shots in 30 seconds. The physical design could be better; the lens makes quite a racket when zooming and seems unstable at its full extension. There's no dust cover for the USB and AV sockets, and the flash is below the shutter release button so it risks being obscured by errant fingers.

There's no direct control over aperture or shutter speed, but the options included are easy to use, with quick access to exposure compensation, white balance and ISO speed. Scene presets such as Portrait and Sports have helpful descriptions of



what they do and how best to use them. One of these, Skew Correct, can crop and straighten the edges of printed material.

Image quality tests revealed less vibrant colours than with other cameras, but pictures were sharp and well exposed. The macro mode gave sharp focus at just 1cm from the subject. The only disappointments were excessive image noise at ISO settings higher than 100, a flash that struggles to illuminate larger subjects and a video mode that's limited to 320x240 resolution.

Image quality is decent rather than exceptional, but overall the R30 is a balanced camera at an attractive price.

Ben Pitt

SUMMARY

- ✓ Fast operation
- ✓ Great battery life
- ✗ Excessive noise at high ISO settings

DIGITAL CAMERA 5 megapixels (2,592x1,944 pixels), 5.7x optical zoom, 26MB internal memory, SD slot, 3.7V 1,150mAh li-ion battery
PART CODE R30
SUPPLIER www.pixmania.co.uk
DETAILS www.ricoh.co.uk

PERFORMANCE (see page 60)



CHOOSING A... Flatbed Scanner

Follow the steps to find your ideal specs

SCANNING AREA: A4
OPTICAL RESOLUTION: 600x1,300dpi
INTERFACE: USB Hi-Speed
SOFTWARE: TWAIN driver

1 A basic flatbed scanner (see specs in grey above) can produce surprisingly good scans if the mechanics and optics are up to scratch – something you can't tell without performing a test scan. The colour depth is often quoted, but this gives you no idea how faithful those colours will be, and poor focus can make a high optical resolution irrelevant. Disregard interpolated resolutions: they just blow up the scanned picture without adding any extra detail.

2 If you have a high workload, it's worth paying more for a faster scanner. The best can produce an A4 300dpi scan in 15 seconds and a preview scan – used to select a detail to scan – in around five seconds. If you have to scan a stack of paper, buy a scanner with an automatic document feeder (ADF).

3 A 300dpi scan is sharp to the human eye, but if you print it at twice the original size the final resolution is a grainy 150dpi. If you plan to print extreme enlargements you need a 1,200x2,400dpi, 2,400x2,400dpi or 2,400x4,800dpi flatbed. The mechanism and optics quality should also be increased accordingly.

4 Transparencies, such as slides and negatives, must be backlit to be scanned – look for a transparency adaptor. A 35mm film needs to be scanned at very high resolution to produce a decent-sized image.

If you've got a lot of film or slides to be scanned, it's better to spend your money on a dedicated film scanner. As well as being built to receive the correct type of media, they automatically cope with dust and scratches, leaving you with a better quality scan.

5 Beyond the standard TWAIN driver that provides compatibility with any scanner-aware software, decent image-editing and OCR software, which converts the text in a scanned image into an editable text document, is useful.